CLAIMS:

1. A method of using multiple smartcards with a single reader, wherein the method comprises;

initiating a session of an application when a first smartcard associated with the application is inserted into the reader;

maintaining said session active when the first smartcard is removed from the reader and a second smartcard associated with the first smartcard is to be inserted in the reader; and

performing an action when a said second smartcard is inserted in the reader.

2. A method as claimed in claim 1, wherein said initiating of said session comprises loading and executing the application.

3. A method as claimed in claim 1, wherein said initiating of said session comprises starting of an instance of the application which is already running.

4. A method as claimed in claim 1, wherein said performing step comprises the sub-step of:

transmitting, upon insertion of the second smartcard into the reader, data read from the second smartcard to said application.

5. A method as claimed in claim 1, wherein said maintaining step comprises the sub-steps of:

transmitting a message from the application to the controlling program indicating that a said second smartcard is required to be inserted in the reader; and

waiting for the insertion of the second smartcard in said smartcard reader.

6. A method as claimed in claim 1, wherein said maintaining step comprises the sub-step of:

terminating the session after a predetermined time if the second smartcard has not been inserted in the reader.

7. A method as claimed in claim 1, wherein the performing step comprises the sub-steps of:

receiving a message from said smartcard reader that a smartcard has been inserted;

determining whether the inserted smartcard is a said second smartcard; and

transmitting, upon determination that the inserted smartcard is said second smart card, data read from the second smartcard to said application.

8. A method as claimed in claim 1, wherein upon completion of said performing step, the controlling program returns to the first mode.

9. A method as claimed in claim 4, wherein said performing step comprises the sub-step of:

transmitting, upon insertion of a further said second smartcard into the reader, data read from the further second smartcard to said application.

10. A method as claimed in claim 1, wherein said terminating step comprises the step of:

terminating said session, when a message has been received that the first smartcard has been removed from the reader and no message has been received from said session indicating a said second smartcard is able to be inserted in the reader.

11. A method as claimed in claim 1, wherein the method comprises the steps of:

initiating a further session corresponding to a newly inserted further smartcard associated with a further application, when no message has been received from said application associated with said first smartcard indicating the newly inserted smartcard is able to be inserted in the smartcard reader.

12. A method as claimed in claim 1, wherein each said smartcard has an identifier uniquely identifying the application.

13. A method as claimed in claim 7, wherein each said smartcard has an identifier uniquely identifying the application and said determining step determines said inserted smartcard by said unique identifier.

14. A method as claimed in claim 4, wherein said data is an address to a computer program.

15. A method as claimed in claim 14, wherein said method comprises the step of:

executing said computer program.

16. A method as claimed in claim 4, wherein said data is for information purposes of said application.

17. A method as claimed in claim 1, wherein said initiating step comprises the sub-steps of:

automatically starting the session of the application when the first smartcard associated with the application is inserted into the reader and the controlling program operating on said processing device is in the first mode.

18. A method as claimed in claim 1, wherein said initiating step comprises the sub-steps of:

starting the session of the application when the first smartcard is inserted in a reader and a user activates a button on the first smartcard and the controlling program operating on said processing device is in the first mode.

19. A method as claimed in claim 1, wherein said initiating step comprises the sub-steps of:

reading an address of the application from the first smartcard; and

loading and executing the application using said address.

20. A method as claimed in claim 1, wherein one of said second smartcards comprises personal information data of a user and said performing step comprises transferring said data to said application.

21. A method as claimed in claim 1, wherein said application is a computer program game and said first smartcard comprises an address of the computer program game and a said second smartcard comprises data for use in that game.

22. A method as claimed in claim 1, wherein said application is a computer program game and said first smartcard comprises comprises an address of the computer program game and a said second smartcard comprises an address of a subsidiary computer program for use with said computer program game.

23. A method as claimed in claim 1, wherein a said second smartcard comprises business information data of a user and said performing step comprises transferring said data to said application.

24. A method as claimed in claim 1, wherein a smartcard operates as a said first smartcard in one context and operates as a second smartcard in another context.

25. A method as claimed in claim 1, wherein the application is a card duplicating application and said performing step comprises duplicating information from a said second smartcard acting as a source to another said second smartcard acting as a target.

26. A method as claimed in claim 1, wherein the application supports the browsing of content and the purchase and/or retrieval of all or parts of this content and said performing step comprises the storing of the purchased and/or retrieved content on said second smartcard.

27. A method as claimed in claim 1, wherein the first smartcard comprises a memory chip and a said second smartcard comprises a magnetic strip.

28. A method as claimed in claim 1, wherein the first smartcard comprises a memory chip and a said second smartcard is a credit card.

29. A method as claimed in claim 1, wherein one or more of said smartcards each comprise printed indicia thereon each corresponding with an associated action and a memory chip having stored therein locational data associated with said indicia and corresponding commands for performing said associated actions, said reader comprising a pressure sensitve membrane, and the method comprising the steps of:

transmiting the locational data and corresponding commands to the processing device upon insertion of the smartcard into the reader;

transmitting locational data associated with a selection of an indicia by a user pressing the transparent membrane over the indicia; and

performing said associated action corresponding to said transmitted locational data.

30. A method as claimed in claim 29, wherein one of said one or more smartcards is said second smartcard and one of said associated actions is said action.

31. A system for using multiple smartcards, wherein the system comprises:

a single card reader;

a processing device having a controlling program operating therein;

communication means for communicating between said single card reader and said processor, wherein said controlling program comprises:

means for initiating a session of an application when a first smartcard associated with the application is inserted into the reader;

means for maintaining said session active when the first smartcard is removed from the reader and a second smartcard associated with the first smartcard is to be inserted in the reader; and

means for performing an action when a said second smartcard is inserted in the reader.

32. A system as claimed in claim 31, wherein said initiating of said session comprises loading and executing the application.

33. A system as claimed in claim 31, wherein said initiating of said session comprises starting of an instance of the application which is already running.

34. A system as claimed in claim 31, wherein said performing means comprises:

means for transmitting, upon insertion of the second smartcard into the reader, data read from the second smartcard to said application.

35. A system as claimed in claim 31, wherein said maintaining means comprises:

means for transmitting a message from the application to the controlling program indicating that a said second smartcard is required to be inserted in the reader; and

means for waiting for the insertion of the second smartcard in said smartcard reader.

36. A system as claimed in claim 31, wherein said maintaining means comprises:

means for terminating the session after a predetermined time if the second smartcard has not been inserted in the reader.

37. A system as claimed in claim 31, wherein the performing means comprises:

means for receiving a message from said smartcard reader that a smartcard has been inserted;

means for determining whether the inserted smartcard is a said second smartcard; and

means for transmitting, upon determination that the inserted smartcard is said second smart card, data read from the second smartcard to said application.

38. A system as claimed in claim 31, wherein upon completion of said action, the controlling program returns to the first mode.

39. A system as claimed in claim 34, wherein said performing means comprises:

means for transmitting, upon insertion of a further said second smartcard into the reader, data read from the further second smartcard to said application.

40. A system as claimed in claim 31, wherein said terminating means comprises:

means for terminating said session, when a message has been received that the

first smartcard has been removed from the reader and no message has been received from said session indicating a said second smartcard is able to be inserted in the reader.

41. A system as claimed in claim 31, wherein the system comprises:

means for initiating a further session corresponding to a newly inserted further smartcard associated with a further application, when no message has been received from said application associated with said first smartcard indicating the newly inserted smartcard is able to be inserted in the smartcard reader.

42. A system as claimed in claim 31, wherein each said smartcard has an identifier uniquely identifying the application.

43. A system as claimed in claim 37, wherein each said smartcard has an identifier uniquely identifying the application and said determining means determines said inserted smartcard by said unique identifier.

44. A system as claimed in claim 34, wherein said data is an address to a computer program.

45. A system as claimed in claim 44, wherein said system comprises:

means for executing said computer program.

46. A system as claimed in claim 34, wherein said data is for information purposes of said application.

47. A system as claimed in claim 31, wherein said initiating means comprises:

means for automatically starting the session of the application when the first smartcard associated with the application is inserted into the reader and the controlling program operating on said processing device is in the first mode.

48. A system as claimed in claim 31, wherein said initiating means comprises:

means for starting the session of the application when the first smartcard is inserted in a reader and a user activates a button on the first smartcard and the controlling program operating on said processing device is in the first mode.

49. A system as claimed in claim 31, wherein said initiating means comprises:
means for reading an address of the application from the first smartcard; and
means for loading and executing the application using said address.

50. A system as claimed in claim 31, wherein one of said second smartcards comprises personal information data of a user and said performing means comprises means for transferring said data to said application.

51. A system as claimed in claim 31, wherein said application is a computer program game and said first smartcard comprises an address of the computer program game and a said second smartcard comprises data for use in that game.

52. A system as claimed in claim 31, wherein said application is a computer program game and said first smartcard comprises comprises an address of the computer program game and a said second smartcard comprises an address of a subsidiary computer program for use with said computer program game.

53. A system as claimed in claim 31, wherein a said second smartcard comprises business information data of a user and said performing means comprises means for transferring said data to said application.

54. A system as claimed in claim 31, wherein a smartcard operates as a said first smartcard in one context and operates as a second smartcard in another context.

55. A system as claimed in claim 31, wherein the application is a card duplicating application and said performing means comprises means for duplicating information from a said second smartcard acting as a source to another said second smartcard acting as a target.

56. A system as claimed in claim 31, wherein the application supports the browsing of content and the purchase and/or retrieval of all or parts of this content and said performing means comprises means for the storing of the purchased and/or retrieved content on said second smartcard.

57. A system as claimed in claim 31, wherein the first smartcard comprises a memory chip and a said second smartcard comprises a magnetic strip.

58. A system as claimed in claim 31, wherein the first smartcard comprises a memory chip and a said second smartcard is a credit card.

59. A system as claimed in claim 31, wherein one or more of said smartcards each comprise printed indicia thereon each corresponding with an associated action and a memory chip having stored therein locational data associated with said indicia and corresponding commands for performing said associated actions, and said reader comprising a pressure sensitve membrane and the communication means transmiting the locational data and corresponding commands to the processing device upon insertion of the smartcard into the reader and the communication means transmitting locational data associated with a selection of an indicia by a user pressing the transparent membrane over the indicia, the processing device performing said associated action corresponding to said transmitted locational data.

60. A system as claimed in claim 59, wherein one of said one or more smartcards is said second smartcard and one of said associated actions is said action.

61. A computer readable medium comprising a computer program for interfacing between an application and a single smartcard reader, wherein the computer program comprises:

means for initiating a session of an application when a first smartcard associated with the application is inserted into the reader;

means for maintaining said session active when the first smartcard is removed from the reader and a second smartcard associated with the first smartcard is to be inserted in the reader; and

means for performing an action when a said second smartcard is inserted in the reader.

62. A method of interfacing between an application and a single smartcard reader, wherein the method comprises:

initiating a session of an application when a first smartcard associated with the application is inserted into the reader and a controlling program operating on a processing device is in a first mode;

terminating the session of the application when the first smartcard is removed from the reader and the controlling program operating on said processing device is in the first mode;

changing the operation of the controlling program from the first mode to a second mode in response to a message from the session of the application that one or more second smartcards associated with the application is able to be inserted in the reader;

waiting for a said second smartcard associated with the application to be inserted in the reader when the first smartcard is removed from the reader and the controlling program is in a second mode; and

passing data from a said second smartcard to the application when the said second smartcard is inserted in the reader and the controlling program is in a second mode.

63. A method as claimed in claim 62, wherein the passing data step comprises the sub-steps of:

receiving a message from said smartcard reader that a smartcard has been inserted;

determining whether the inserted smartcard is a said second smartcard; and

transmitting, upon determination that the inserted smartcard is said second smart card, data read from the second smartcard to said application.

64. Apparatus for interfacing between an application and a single smartcard reader, wherein the apparatus comprises:

means for initiating a session of an application when a first smartcard associated with the application is inserted into the reader and a controlling program operating on a processing device is in a first mode;

means for terminating the session of the application when the first smartcard is removed from the reader and the controlling program operating on said processing device is in the first mode;

means for changing the operation of the controlling program from the first mode to a second mode in response to a message from the session of the application that one or more second smartcards associated with the application is able to be inserted in the reader;

means for waiting for a said second smartcard associated with the application to be inserted in the reader when the first smartcard is removed from the reader and the controlling program is in a second mode; and

means for passing data from a said second smartcard to the application when the said second smartcard is inserted in the reader and the controlling program is in a second mode.

65. A computer readable medium comprising a computer program for interfacing between an application and a single smartcard reader, wherein the computer program comprises:

means for initiating a session of an application when a first smartcard associated with the application is inserted into the reader and a controlling program operating on a processing device is in a first mode;

means for terminating the session of the application when the first smartcard is removed from the reader and the controlling program operating on said processing device is in the first mode;

means for changing the operation of the controlling program from the first mode to a second mode in response to a message from the session of the application that one or more second smartcards associated with the application is able to be inserted in the reader;

means for waiting for a said second smartcard associated with the application to be inserted in the reader when the first smartcard is removed from the reader and the controlling program is in a second mode; and

means for passing data from a said second smartcard to the application when the said second smartcard is inserted in the reader and the controlling program is in a second mode.

66. A method of using multiple smartcards in a system comprising a processing device and a single card reader communicating therewith, wherein the method comprises:

initiating a session of an application when a first smartcard associated with the application is inserted into the reader and a controlling program operating on said processing device is in a first mode;

terminating the session of the application when the first smartcard is removed from the reader and the controlling program operating on said processing device is in the first mode;

changing the operation of the controlling program from the first mode to a second mode in response to a message from the session of the application that one or more second smartcards associated with the application is able to be inserted in the reader;

waiting for a said second smartcard associated with the application to be inserted in the reader when the first smartcard is removed from the reader and the controlling program is in a second mode; and

performing an action when a said second smartcard is inserted in the reader and the controlling program is in a second mode.

67. A system for using multiple smartcards, wherein the system comprises:

a single card reader;

a processing device having a controlling program operating therein;

communication means for communicating between said single card reader and said processor, wherein said processing device comprises:

means for initiating a session of an application when a first smartcard associated with the application is inserted into the reader and the controlling program operating on said processing device is in a first mode;

means for terminating the session of the application when the first smartcard is removed from the reader and the controlling program operating on said processing device is in the first mode;

means for changing the operation of the controlling program from the first mode to a second mode in response to a message from the session of the application that one or more second smartcards associated with the application is able to be inserted in the reader;

means for waiting for a said second smartcard associated with the application to be inserted in the reader when the first smartcard is removed from the reader and the controlling program is in a second mode; and

means for performing an action when a said second smartcard is inserted in the reader and the controlling program is in a second mode.

68. A method of using multiple smartcards, aggregated into a lesser plurality of groups of said smartcards, said method comprising the steps of:

(a) inserting a first smartcard into a smartcard reader;

(b) reading and storing, if said first smartcard is a base smartcard, (i) an identity for a group, (ii) an identity of the base smartcard, (iii) an interface description for the base smartcard, (iv) an identity for at least one associated member card, and (v) an interface description for said at least one associated member card;

(c) ejecting the first smartcard from the smartcard reader and inserting a second smartcard therein, said smartcard reader making accessible a user selectable icon, having an associated action, on a surface of the inserted second smartcard;

(d) reading, if said second inserted smartcard is a member card associated with said base smartcard, of (i) said identity of said group, to which said second inserted smartcard is associated, and (ii) an identity of the inserted associated member smartcard;

(e) comparing the group identity read from the first smartcard to the group identity read from the second smartcard; and

(f) enabling, because said compared group identities match, the associated action if a user selects the user selectable icon, whereby the association between the icon and the action is defined by the interface description for the associated member smartcard read and stored from the associated base smartcard.

69. A method according to claim 68, whereby if in step (c) said second inserted smartcard is a member card associated with another base smartcard, the method comprises, after step (c), the steps of:

(g) reading by the smartcard reader of (i) an identity of a group to which said second inserted smartcard is associated, and (ii) an identity of the inserted member smartcard;

(h) comparing the group identity read from the first smartcard to the group identity read from the second smartcard; and

(i) not enabling, because said compared group identities do not match, the associated action if a user selects the user selectable icon.

70. A method according to claim 68, whereby if in step (c) said second inserted smartcard is said other base smartcard, the method reverts to step (b), regarding said second inserted smartcard as being said first inserted smartcard as previously defined in step (a).

71. A method according to claim 69, whereby the method comprises the further step of:

(j) emitting an alarm to the user, indicating that insertion of an incompatible member card has occurred.

72. A method as claimed in claim 68, wherein one or more of said smartcards each comprise printed indicia thereon each corresponding with an associated action and a memory chip having stored therein locational data associated with said indicia and corresponding commands for performing said associated actions, said reader comprising a pressure sensitve membrane, and the method comprising the steps of:

transmiting the locational data and corresponding commands to the processing device upon insertion of the smartcard into the reader;

transmitting locational data associated with a selection of an indicia by a user pressing the transparent membrane over the indicia; and

performing said associated action corresponding to said transmitted locational data.

73. A method as claimed in claim 72, wherein one of said one or more smartcards is said second smartcard and one of said associated actions is said action.

74. A method for enabling smartcard initiated actions associated with a group of smartcards comprising a base smartcard and at least one associated member smartcard, said method comprising steps of:

inserting the base smartcard into a smartcard reader;

reading of base smartcard data and first data for the associated member smartcard from the inserted base smartcard;

inserting the member smartcard into the smartcard reader;

reading of second data from the inserted member smartcard; and

enabling a smartcard initiated action associated with the member smartcard dependent upon a correspondence between the first data and the second data.

75. Apparatus for using multiple smartcards, aggregated into a lesser plurality of groups of said smartcards, said apparatus comprising:

means for reading and storing from a first smartcard, if said first smartcard is a base smartcard, (i) an identity for a group, (ii) an identity of the base smartcard, (iii) an interface description for the base smartcard, (iv) an identity for at least one associated member card, and (v) an interface description for said at least one associated member card;

means for reading from a second smartcard, if said second smartcard is a member card associated with said base smartcard, of (i) said identity of said group, to which said second inserted smartcard is associated, and (ii) an identity of the inserted associated member smartcard;

means for comparing the group identity read from the first smartcard to the group identity read from the second smartcard; and

means for enabling an action associated with a user selectable icon, if said compared group identities match, and if a user selects said user selectable icon, whereby the association between the icon and the action is defined by the interface description for the associated member smartcard read and stored from the associated base smartcard.

76. Apparatus for enabling smartcard initiated actions associated with a group of smartcards comprising a base smartcard and at least one associated member smartcard, said apparatus comprising:

means for reading of base smartcard data and first data for said at least one associated member smartcard form a base smartcard inserted in a smartcard reader;

means for reading of second data from a said member smartcard inserted in a smartcard reader; and

enabling a smartcard initiated action associated with the member smartcard dependent upon a correspondence between the first data and the second data.

77. A computer readable medium comprising a computer program for interfacing between multiple smartcards, aggregated into a lesser plurality of groups of said smartcards, said computer program comprising:

means for reading and storing from a first smartcard, if said first smartcard is a base smartcard, (i) an identity for a group, (ii) an identity of the base smartcard, (iii) an interface description for the base smartcard, (iv) an identity for at least one associated member card, and (v) an interface description for said at least one associated member card;

means for reading from a second smartcard, if said second smartcard is a member card associated with said base smartcard, of (i) said identity of said group, to which said second inserted smartcard is associated, and (ii) an identity of the inserted associated member smartcard;

means for comparing the group identity read from the first smartcard to the group identity read from the second smartcard; and

means for enabling an action associated with a user selectable icon, if said compared group identities match, and if a user selects said user selectable icon, whereby the association between the icon and the action is defined by the interface description for the associated member smartcard read and stored from the associated base smartcard.

78. A computer readable medium comprising a computer program for interfacing between multiple smartcards, aggregated into a lesser plurality of groups of said smartcards, said computer program comprising:

means for reading of base smartcard data and first data for said at least one associated member smartcard form a base smartcard inserted in a smartcard reader;

means for reading of second data from a said member smartcard inserted in a smartcard reader; and

enabling a smartcard initiated action associated with the member smartcard dependent upon a correspondence between the first data and the second data.

79. A base smartcard of one or more associated member smartcards, wherein said base smartcard and said one or more member smartcards forming a group of smartcards, each said base or member smartcard comprising memory storage having stored therein a common group number identifying said group and a number identifying said smartcard, and each said member smartcard comprising an interface for user interaction, wherein said memory storage of the base smartcard having further stored therein interface descriptions of each member smartcard.

80. A member smartcard associated with a base smartcard, wherein said base smartcard and said member smartcard forming a group of smartcards, each said base or member smartcard comprising memory storage having stored therein a common group number identifying said group and a number identifying said smartcard, and said member smartcard comprising an interface for user interaction, wherein said memory storage of the base smartcard having further stored therein interface descriptions of said member smartcard.